Synopsis

On

Study on Menstrual Hygiene in Rural Haryana: Awareness, Attitude & Perception

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I. Introduction

"Menstrual hygiene is just not a women's issue but an issue of girl's child health, of education, of more profitable and better business practices, of income generation, of, of growth, of sustainability."- Archana Patkar, Program Manager, WSSCC

Onset of menstruation is one of the most crucial changes occurring amongst the girls during the adolescent. The first-time menstruation (menarche) occurs between 11-15 years of age with a mean age of 13 years (Mehra S. 1994). The menstruation is a physiological and natural process that occurs during the reproductive time of every woman (J S Beek et al.1996 and D, Gupta S.2003). Problem of menstrual hygiene starts with onset of menstruation. Throughout the adolescent age, the practices, knowledge and attitude are generally followed by girls in their life which also transferred to their next generation. Majority of adolescent girls reported that their mother is the main source of information regarding menstruation and practices for it (Ahuja A & Tewari S 1995). Menstrual hygiene depends upon the educational, socioeconomic, and cultural statuses of family. School curriculum also have major role in menstrual health (Dhingra R et al. 2009). Menstruation is the natural part of the reproductive cycle in which blood from the uterus exit through the vagina. Despite being a phenomenon unique to the girls, it has always been surrounded by secrecy and myths in many societies. Taboos surrounding menstruation exclude women and girls from many aspects of social and cultural life. Some of these are helpful, but others have potentially harmful implications. Women and adolescent girls are using a clean menstrual management material as a menstrual absorbent, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials (Sommer and Sahin, 2013).

While some women take the monthly menstruation for granted finding in it a reassurance of womanhood, fertility and freedom from pregnancy, for others it represents an unhygienic phenomenon and connotes moral and spiritual uncleanliness, a sign of disease or a curse for evil and several misconceptions which varies with the local socio-cultural and economic context

(Umeora et al., 2008; Ten, 2007; Swensen, 1987; Mudey et al., 2010; Garg, 2001; George 1994; Dhingra, 2009; Lawan, 2010). Many young girls often face serious health problems as a result of the strong parental bondage with traditional beliefs about menstruation. These girls suffer many gynecological problems including infections of the reproductive organs as a result of poor personal hygiene and unsafe sanitary conditions (Bhatia et al., 1995; Avasarala et al., 2008; Khanna et al., 2005; Aniebue et al., 2009). Furthermore, inappropriate disposal of absorbents used during menstruation was reported to contribute to the growing urban waste problem in developing countries (Ten, 2007).

In India, only mention of the topic has been a taboo since the past and even to this date the cultural and social impacts appear to be an obstacle for development of knowledge on the subject (Green E.M. 1997). Culturally in many parts of India, menstruation is still presumed to be dirty and unclean. In some areas of the country there were restrictions on bathing and a taboo against burial of cloth used during menstruation. Firstly, cloths should be washed and after that reused or buried. Menstruated cloths should be washed and dried secretly so that it can't be seen by anybody There was also presumed that some people misuse the menstruated waste for black magic, so women should not draw it in open area and should wash the wrapper/cloth only at night when other family members were asleep (Dhingra R et al., 2009 and Sommer M et al., 2013) Cultural norms, parental influences, personal choices, economic status and socioeconomic stress affect the menstrual hygiene practices. Menstrual beliefs are the misconceptions attitude about menstruation in a given culture or religion. Menstrual hygiene management was interconnected with beliefs, knowledge and practice (O. U. Umeora and V. E. Egwuatu, 2008 and U. Aniebue2010). There are many cultural and religious beliefs that are followed by people about menstruation which were the barriers in the way of good menstrual hygiene practices. Majority of women faced restrictions on cooking, work activities, bathing, touching pickle, worshiping and eating certain food during their periods. 'All restrictions regarding menstruation were due to the perception of people because they think that it is dirty, impure, unclean and polluting (Younis N et al 1993). Menstruation is a normal and process. It usually does not affect women's daily activities. The word 'menstruation' is etymologically related to 'moon'. The term 'menstruation' and 'menses' are derived from the Latin mensis (month), which in turn relates to the Greek mene (moon) and to the roots of the English words month and moon reflecting the fact that the moon also takes close to 28 days to revolve around the Earth (actually 27.32 days). The

female, being more intelligent and perhaps aware of her environment, adopted to a cycle close to the moon (Charles Darwin 1879 and Cecil Adams 1999).

Adolescence in girls has been recognized as a turbulent period which signifies the transition from girlhood to womanhood and considered as a landmark of female puberty (Bansal R. D. & Mehra M., 1998). The word "Adolescent" is derived from the Latin word "adolescere" which means to grow to maturity that indicates the defining features of adolescence. It is an important time period during which female prepares and adjusts them to manage their menstruation in clean and safe manner. Adolescent is that time in which girls usually enter in different environments including high school and tried to think for their next adulthood. Majority of adolescent girls (10 to 19 years old) have not adequate knowledge when they enter into their puberty stage (Sarkar M. et al., 2008). Due to inadequate knowledge regarding menstruation girls face mental, emotional and physical problems. Further these problems spoil the daily activities, academic performance, school attendance, and social relationships of adolescent girl (Adewuya A et al 2008 and FE Omu et al. 2011). So, the adolescent girls think that menstruation is embarrassing process and it should be kept hidden (Adinma ED et al. 2008, Bhatt R et al 2005, Kumar et al. 20011, and MK et al. 2001).

India, social norms about menstruation can be quite limiting. In our society, people think that menstruation is totally a taboo or a curse for them even in 21th century. For illustration, authorities at a temple in south India presently asked for a tool/machine to be designed to find out a women's "purity" (i.e. whether she is menstruating or not) prior to allowing her to enter the temple's mansion. In another example, a 12-year school girl committed suicide because her teacher scolded for staining her uniform and sitting bench with menstrual blood. In addition, Indian education system provides limited MHE, introducing the subject to 13 year- old as a part of their science curriculum and covering menarche to menopause in 250 words only. Overall well- being and development of individual and whole society is badly affected by incomplete or inaccurate knowledge on such an important health topic (Celia McMichael and Sandra Gifford, 2009). Indian government has adopted Menstrual Hygiene Management (MHM) guidelines to address the limiting norms and limited awareness, which stress the need for access to education, awareness for multiple groups (individual, family and society), and provision for expert support on the subject. Several non- governmental organizations like Sachi Saheli, Vikalp Design and TARSHI have made educational content and regularly conducting awareness campaigns and

workshops. Many companies selling menstrual hygiene products that have launched in their own campaigns and workshops, for example Whisper's touch the Pickle campaigns and Stayfree's Women for change (CSR Resources 2013). In 2018, the journey of Arunachalam Muruganantham "The Pad man of India" was covered in a Bollywood film that made a machine to prepare sanitary napkins at low cost and explore the awareness in society regarding menstruation. All these initiatives spread awareness and acceptability, but many more such are needed (A. Tuli et al. 2018).

Across India there is a serious need for advancement of MHE, because there are many deep-rooted sociocultural norms that intercept open discussion on the topic. Indian women and girls across ages are draped in superstitions, myths, and various restrictions around menstruation and menstrual health (Chothe et al. 2014, Kumar et al., 2011). A study conducted across central Indian schools revealed that only 3% school girls had received information from their teachers before menarche, and 24% girls were not receiving information even after menarche (Dharampal G. et al. 2012). Focusing on these terrible conditions surrounding MHE, the Indian government has undertaken multiple initiatives, such as Kishori Shakti Yojana (KSY) which gives free sanitary pads and encourage MHE in government schools, and SAATHIYA resources kit (including an Android application in Hindi), which targets to train adolescent educators, across gender, from the society, who would help to conduct peer-to-peer awareness programs to aware the people in the field. Besides this, the government of India adopted national guidelines on Menstrual Hygiene Management (MHM) as a part of Swachh Bharat (Clean India) Mission in 2015. With the aim of promoting 'Menstrual Hygiene', different state governments are also establishing sanitary napkins vending machines in schools and public places. Delhi state government is also trying to develop the educational material with additional focus on sensitizing male youth. Multiple state agencies across India are utilizing educational materials improved by UNFPA (United Nations Population Fund).

Menstrual hygiene and management will directly contribute to MDG-2 on universal education, MDG-3 on gender equality and women empowerment. However, the attention on this issue is far from sufficient and even the literature on gender mainstreaming in the sanitary section is silent on the issue of menstrual management. The subject of menstruation is too often taboo and has many negative cultural attitudes associated with it; including the idea that menstruating women

and girls are ‘contaminated’, ‘dirty’ and ‘impure’. For Example, In Egypt because of cultural and religious beliefs, menstruation is not considered an appropriate topic of discussion that lead to lack of accurate information for girls to manage their menstruation hygienically.

II. Review of Literature

Menstrual Hygiene Management (MHM) is defined as:

“Women and adolescent girls are using clean menstrual management materials to absorb or collect blood that can be changed in privacy as often as necessary during the menstruation period, using soap and clean water for washing the body as required, and having access to facilities to dispose of used menstrual management materials" (JMP 2012).

Menstrual Hygiene

Menstruation is the vaginal bleeding that occurs in adolescent girls as a result of hormonal changes, which normally happens in a predictable pattern once in a month and also hygiene is practice which is concerned with the prevention of the illness and maintenance of good health (Banerjee. 2008). Hygiene is also referred to the practice of cleanliness during the menstruation among girls (Dutta, 2004).

Menstruation or menses is the natural bodily process of releasing blood and associated matter from the uterus through the vagina as part of the menstrual cycle.

Menarche is the onset of menstruation, the time when a girl has her first menstrual periods.

Menstrual hygienic materials are the products used to absorb menstrual flow, such as pads, cloths, tampons or cups.

Menstrual supplies are other supportive items needed for menstrual health hygiene (MHH), such as body and laundry soap, panties and pain relief items.

Menstrual facilities are those facilities most connected with a safe and pretentious menstruation, such as toilets and water infrastructure.

Activities to promote Menstrual Hygiene Management in India:

Various ministries (including Drinking Water and Sanitation, Health and Family Water and Sanitation, Health and Family Welfare, Human Resource Development, Rural Development, Women and Child Development), policies and program have contributed to menstrual hygiene management (MHM) in schools over recent years and the current momentum offers potential for even wider impact across India. Areas that require concerted action are systematic coordination between government agencies involved in MHM programming, monitoring to track progress, and effective budget allocations and utilization to support cross-sectoral action and convergence.

Educational materials

- 52% of girls are unaware of menstruation pre-menarche (LSTH et al, 2016).
- 58% use hygienic protection (locally prepared pads, sanitary pads and tampons) (National Family Health Survey (NFHS-4), 2015-16).
- 70% of mothers consider menstruation “dirty,” further perpetuating taboos.
- In Maharashtra and Tamil Nadu, menstruating girls are asked to stay away from religious spaces, kept in isolation, not allowed to play outside, or go to school.
- Girls typically miss 1-2 days of school per month (United Nations Children’s Fund; (UNICEF), 2015
- The national educational curriculum focuses on practical and biological aspects of menstruation and personal hygiene rather than MHM. There is a lack of information on psycho-social changes and reproductive health or skills-based hygiene education (FSG 2016) and low capacity among teachers/frontline staff on MHM.

Policies Standards Guidelines Legal frameworks

- The Right of Children to Free and Compulsory Education Act (RTE) (2009) includes standards for drinking water and gender-separated sanitation facilities in schools.
- A 2011 Supreme Court directive to all states instructed them to prioritize separate toilets for girls and drinking water in schools.

- Menstrual Hygiene Scheme of the Ministry of Health and Family Welfare (MoHFW) for rural adolescent girls to enhance MH knowledge improves hygiene practices, provide subsidized sanitary absorbents, and raise awareness of MHM at school.
- SABLA program of Ministry of Women and Child Development focuses on nutrition, health, hygiene and reproductive and sexual health (linked to rural mother and child care Centre
- National Rural Livelihood Mission of the Ministry of Rural Development supports self-help groups and small manufacturers to produce sanitary pads.
- Swachh Bharat Mission (SBM) Swachh Bharat: Swachh Vidyalaya (SB: SV) Ministry of Drinking Water and Sanitation (MoDWS) includes guidelines for sanitation in schools and emphasizes MHM facilities and awareness rising.
- Ministry of Drinking Water and Sanitation (MoDWS) published the Menstrual Hygiene Management National Guidelines with UNICEF support. Ministry OF Drinking and Sanitation (MoDWS) has also developed Guidelines for Gender Issues in Sanitation (2017).

MHM in school's practice

- MHM education, gender separate toilets, safe disposal and access to soap and water are now embedded in the 2015 MHM National Guidelines. In addition, SB:SV includes design principles for separate toilets, and suggests access to emergency pads
- Many schools are increasingly outsourcing MH training for teachers to specialist NGOs (FSG 2016).

- Some states have included water, sanitation and hygiene (WASH)/MHM-related behavior change components into their work and teacher training, e.g. in Maharashtra, by 2016, 120,000 girls had been reached by a district-level approach led by Sindhudurg District and UNICEF.
- Available types of sanitary pads are of varying quality and unaffordable for many. Some state governments provide free pads in rural schools. Although the National MHM Guidelines support the use of clean cloth, the Government is encouraging states to

manufacture and increase access to disposable pads that conform to national standards (Ministry of Health and Family Welfare).

MHM in Education Monitoring Information System (EMIS)

- Information System for Education (DISE) collects data on WASH District indicators for EMIS, however MHM is not included. UNICEF and others are currently condensing the proxy indicators across the different monitoring systems into a few key MHM indicators based on Joint Monitoring Program for Water Supply and Sanitation (JMP) guidance. The National MHM Guidelines also propose key performance indicators.

Coordination platforms/ mechanisms

- Menstrual Health Alliance India (MHAI) is a national level inter-agency advocacy group. There is also a state-level advocacy platform in Uttar Pradesh and other platforms in the south for MHM learning and advocacy.

The papers reviewed are given below:

Cross-Cultural Visualization of Menstrual Hygiene:

Globally, approximately 52% of the female population (26% of the total population) is of reproductive age. Most of these women and girls menstruate each month for between three to seven days (Population Reference Bureau, 2011). There are many misconceptions and superstitions associated with menstruation in the world. Ignorance has led to many kinds of practices especially among the school girls, some of which are very much harmful. Menstrual problems have also been reported in about 87 percent of school girls in Nigeria (Abioye 2000). Cultural critic, Kissling (2002) mentioned that the most fascinating thing about menstruation is especially among the school girls, some of which are very much harmful. Menstrual problems have also been reported in about 87 percent of school girls in Nigeria. Women often feel joy in their ability to reproduce, but shame and sadness at living in a society that considers menstruation as a taboo and prohibits women from talking openly about normal bodily processes. In many low-income countries, women and girls are restricted in mobility and

behaviour during menstruation due to their "impurity" during menstruation. Menstruation is still related to a number of cultural taboos and is usually associated with feelings of shame and uncleanliness. Even today it continues to be a secret of mother and daughter in many families. It is not discussed in the open (Costos et al, 2002; Charlesworth, 2001; Houppert, 2000; Cronje & Kritzinger, 1991; Delaney et al, 1988).

A study conducted to evaluate the knowledge, beliefs, and sources of information about menstruation, and also to examine the hygiene practices among adolescent girls. Data was collected using pre-tested questionnaire during the period of 1st June to 31th August 2017. Out of 100 adolescent girls, 72% were between 15 and 19 years. Majority of girls (47%) were having high school education. About 47% mothers were illiterate; 27% girls got menarche at 14 years and 82% had regular menstruation. About 76% girls had no knowledge regarding menses before menarche. About 84% girls received information from their mothers. About 60% girls used sanitary napkins and other used cloth pieces. About 22% used water and no soap for hand washing. They faced multiple restrictions during their periods. The study concluded that menstrual hygiene was unsatisfactory among adolescent girls. Hence, girls should be educated regarding the facts of menstruation and proper hygienic practices (Deshpande *et al*., 2018). A study was operated to evaluate the current knowledge and practices about menstrual hygiene of adolescent girls and to define the correlation of knowledge and practices score among adolescent girls. Information was collected on demographic variables including the age, class, type of family, education of mothers, family income, age of menarche etc. Study revealed that only 29% adolescent girls had adequate knowledge about menstrual hygiene. Practices score on menstrual hygiene were 19%-poor, 69%- fair and 12% -good. There was a positive correlation between knowledge and practices score of respondents. There are many factors that responsible for lack of information about menstrual hygiene. Study revealed that there was a need to encourage about safe and hygiene practices among adolescent girls and open up them out of misconception, traditional beliefs and restrictions about menstruation. Various schemes for menstrual health should be announced and promoted the use of sanitary pad and protected the girls from reproductive tract infection (RTI) through awareness program (A Mahajan *et al.,* 2017).

A cross-cultural analysis of menstrual taboos shows that this same ambiguity surrounds many of the actual taboos. Ethnographers, especially male ethnographers, have often reported that

menstrual blood and menstruating women are viewed as dangerous and/or offensive, particularly to men. They also report that there have always been prohibitions surrounding menstruation aimed at controlling or confining it and that it has always been interpreted as dangerous or offensive (Buckley and Gottlieb, 1988). MacDonald and Shauna (2007) acknowledged that perceptions about menstruation, both negative and positive, are constructed primarily by young women's introduction to menstruation and are perpetuated by the influences of their peers, family members, and the media, among others. A study on connection between girls schooling and menstruation in Uganda revealed that menstruation affects girl's participation especially in the rural schools. This connection was realized from the different feelings of concealment, embarrassment, fear, shame and sometimes anxiety towards menstruation. This is more so because the situation in rural areas is worse in terms of menstrual management than in urban poor areas which in turn leads to discrimination and stigmatization which lowered the self-esteem of these girls and interfere with their confidence and feelings, hence bringing a negative impact to their schooling (Matovu, 2011). A study on menstruation beliefs and behavior of adolescent girls in semi - rural Haryana (India) was conducted with a cross-sectional sample of 120 adolescent girls ranging in age from 13 to 18 years. The majority of respondents (68%) had not adequate knowledge of menarche and its causes until they experienced their first menstruation. Parents tended to give limited mobility to adolescent girls to enforce cultural norms. Girl respondents had many concerns and questions related to their identity. They had to cope with new biological and psycho-social realities, as adolescence brings several body and physical changes, and there were restraints placed by the parents, expectations of society to adhere to cultural ethos as expected from the grown - up girls to behave in a particular fashion, while no such restrictions were put on males. Results showed that adolescents' expectations of menarche were largely negative and heavily influenced by cultural beliefs about menstruation. Parental education and socioeconomic status were not significant predictors of myths, prevalent taboos and beliefs related to menstruation regarding purity, food avoidance. Lower middle class was more conservative than lower class, middle-, and higher middle classes and were more committed believers of the traditional practices and values (Shruti Chopra *et al.,* 2012).

Menstrual hygiene is an important component of women health and poor menstrual hygiene might result urinary tract infection, reproductive tract infection and sexually transmitted diseases

like cervical cancer, HIV/AIDS, etc. Mostly students had plausible menstrual hygiene. Majority of selected respondents (98.6%) used disposable sanitary napkins yet menstrual hygiene was an issue that requires to be addressed at all levels (EL Meselhy *et al*., 2020). Providing menstrual friendly environment was an important point for school's readiness due to increasing the girl's enrolment in schools. This study focused to explain the actions that had been taken by government to improve the MHM situation in India. This study revealed that less than 50% of girls were aware of menstruation before menarche (PP 0.45, 0.39 to 0.51, n=122). There were no separate toilets for girls in around half of the schools. MHM should be strengthened with convergence between various departments for manifest execution of guidelines. There was a wide scope of integrating various curriculums or non- curriculum-based actions on menstrual health education and established schools as an ideal forum to spread MHM information (Sharma S *et al.,* 2020). A study was conducted to analyze knowledge, readiness and practices of menstruation and its management among adolescent, teachers and mothers. Data was collected by conducting in-depth interviews and focus group discussions among teachers, mothers and girls to discover their opinions on menstruation, cultural beliefs, level of knowledge, sources of menstruation and MHM practices. Along this, a survey was completed among 331 school girls to evaluate their knowledge, attitude and practices of menstruation and its management. Inductive content analysis, descriptive, analysis and chi- square test were used to detect results. The study found that post- menarche girls had more knowledge in comparison to pre- menarche girls (p=0.0001). Mothers answered that they face difficulties in discussing menstruation with their children. Majority of girls used reusable clothes yet they had given free sanitary napkins from school. Girls took advice from parents and teachers about appropriate MHM practices due to taboos, secrecy and embarrassment associated with menstruation. Strategies to stimulate positive social norms on menstruation would help to increase more open discussion about it at the family, society and national level which will help to improve the MHM practices (Vishna Shah *et al*., 2019).

A study conducted on "Menstrual Hygiene Management and Waste Disposal: Practices and challenges faced by Girls/Women in Developing Countries" represented that there were many barriers in the menstrual hygiene management: social, cultural and religious restrictions. Girls had to face many difficulties and challenges at homes, schools and work place because they were

not prepared and aware about menstruation especially in rural areas. Menstrual Hygiene Management scheme failed due to incomplete or inaccurate knowledge about menstruation. Girls & Women ignored the personal hygiene during menstruation which resulted Reproductive Tract Infection and they had less or no knowledge about it. In rural areas women did not use sanitary products due to less knowledge about the type and methods of using them and less affordability due to high cost. Although there was major development in the area of water and sanitation, still needs and requirements of girls/ women were ignored. There were different ways of managing menstruation when they were at home or outside. There was a strong need to educate and make them aware about environmental pollution and health issues associated with disposal of menstruation waste. Modern technique (incinerators) could be implemented that helped to reduce the waste. Awareness should be created to increase the use of sanitary products which were made with the help of banana fiber, bamboo fiber, sea sponges and water hyacinth (K. R *et al.*, 2018). A study conducted on the topic "Menstrual Hygiene Practices, Wash, Access and Risk of Urogenital Infection in Women from Odisha, India" to evaluate the association of MHM practices with Urogenital Infection, controlling for environmental drivers included the exploratory variables (types of absorbent material, frequency of changing pads during menstruation, body hygiene washing practices) and confounding variables (socio- demographic and economic characteristics such as age, marital status living arrangement, religion, caste, educational attainment, occupation etc.) Women used reusable absorbent pad had to faced more problems of urogenital infection (AdjOR=2.3, 95% CI1.5-3.4) or found at least one urogenital infection (BV or UTI) in comparison to those who used disposable pads. The main factor of UTI was the lower education of the participants. Providing education regarding safer, low cost MHM material could reduce urogenital disease among women (Das P *et al*., 2015).

A study conducted on the topic "Menstrual Hygiene and Reproductive Morbidity in Adolescent Girls" with the objective of evaluating the magnitude of gynecological morbidities among adolescent girls as well as to find out the relation between menstrual hygiene and Reproductive Tract Infection (RTI). Adolescent girls faced serious health problems due to socio- economic, environmental and cultural conditions as well as gender discrimination. Study revealed that there were approximately 65% girls faced the problems of dysmenorrheal and 19% girls faced the problem of excessive vaginal discharge with or without lower abdominal pain/ low backache. Poor menstrual hygiene strongly associated with RTI. Awareness program should be conducted

to provide reproductive health education to the girls (Juyal R *et al.,* 2014). A study explored that 80% of adolescent girls were aware and 70% were motivated about to use sanitary napkins, but still only 30% girls used sanitary napkins. Most of the adolescent girls ignored the use of napkins due to difficulty in availability and disposal of pads. The main problem of failure of MHS was irregular supply, low subsidy and not involving relevant stakeholder for distributing the sanitary napkins in rural areas (Bhattacharya S *et al.,* 2016).

Restrictions/Taboos faced by Females during Menstrual Cycle:

Menstruation in India and elsewhere has been defined by many taboos and restrictions. Till date at many places these taboos are very carefully reinforced. Many families continue the custom of celebrating the first menarche and observing the social restriction during menstruation in Anand District, Gujarat (Tiwari et al, 2006). In Cuddalore district of Tamil Nadu, the Socio-cultural taboo Index developed classified women into three categories as low, moderate and high practice of social taboos. The results show that there is a very strong practice of keeping women away from religious and ceremonial participation. Surprisingly, this practice is comparatively high among urban respondents. Except religious and ceremonial related taboos, women do not seem favorable to practice any other social taboos (Selvi and Ramachandra, 2012). 41.5% of adolescent girls told that Pooja (prayers) room entry is forbidden. Majority of the adults believed that during menstruation woman should not go to a temple (Puri and Kapoor, 2006). Majority of women indulged in various taboo during menstruation. The study concluded that women in rural north India still hold traditional beliefs regarding menstruation (Singh, 2006). The knowledge, attitude and practice regarding reproductive health among 200 school girls in the age 15-19 years from rural and urban settings of Jaipur showed that majority girls had several taboos regarding reproductive health (Dube and Sharma, 2012).

A study conducted on "India moves Towards Menstrual Hygiene: Subsidized sanitary Napkins for Rural Adolescent Girls – Issues & challenges." The objective of study was to look at the problems of menstrual hygiene, health issues of women. There were many myths and misconception about menstruation with a long list of "do" and "don'ts" for women. During menstruation, hygiene related practices had an ample importance for women because it might increase permeability to Reproductive Tract Infection (RTI). Major reason for high spreading of RTI was poor menstrual hygiene that contributed significantly to female morbidity. Due to using

rags and old clothes during menstruation in rural areas increased susceptibility to RTI. Sexual health education should be included in the national welfare program of the country. Government of India introduced a new scheme in June 2010, towards menstrual hygiene by provision of subsidized sanitary napkins to rural adolescent girls. Scheme was failed due to various issues like awareness, availability & quality of napkins, regular supply, and privacy, and water supply, disposal of napkins, reproductive health education and family support which needed simultaneous consideration for promotion of menstrual hygiene (Garg R *et al.*, 2011).

Cultural taboos also include avoiding sour foods for fear of a smelly period, not touching certain food items to prevent contamination and the general belief that menstruation dispels contaminated/toxic blood. There is also the belief that the body is ridding itself of hot "negative energy" and warm baths can be harmful to the body and/or the environment (UNICEF, India 2008). In some parts of India, some strict dietary restrictions are also followed during menstruation such as sour food like curd, tamarind, and pickles are usually avoided by menstruating girls (Kumar and Shrivastava, 2011 and Pure & Kapoor, 2006). It is believed that such foods will disturb or stop the menstrual flow (Sadiq & Sahil, 2013). As far as the exercise is concerned, many studies in India and elsewhere have revealed that many adolescent girls believe that doing exercise/physical activity during menses aggravates the dysmenorrhea while in reality exercise can help relieve the menstruating women with symptoms of premenstrual syndrome and dysmenorrhea and reduces bloating. Exercise also causes a release of serotonin, making one feel much happier (Poureslami & Ashtiani, 2002; Sadiq & Sahil, 2013, and Morley, 2014). Researchers like Talwar (1997), Paul (2007) have also found restrictions in daily activities like taking bath, changing clothes, combing hair, cooking food and entering holy places. A woman is not allowed to even touch pickles. It is also thought that if a snake is present in the vicinity of a menstruating woman, it can become blind and not be able to move. A study conducted in Riyadh in Saudi Arabia revealed that nearly two-thirds of the girls avoided certain foods, drinks and activities, including showering and performing perineal care, and practiced several indigenous rituals during their periods (Moawed, 2001). Certain practices were restricted during menstruation such as bathing and physical activity often leading to and absenteeism from school (Sadiq and Salih, 2013).

A study conducted to discover the prevailing social and cultural practices about menstruation including the variables like awareness level, changes in behavior during menstruation, their perception regarding menarche, how they manage it and various taboos, norms and cultural practices connected with menarche. The study was included 117 adolescent girls aged between 11-20 years) and 41 mothers from different classes and communities including residential colonies and urban slums. The study expressed many practices like cultural and social restrictions connected with menstruation, myths and misconceptions, attitude of adolescent girls and family toward it, changes after menarche and opposition to such changes. The study concluded that girl's education, attitude, family environment, culture and belief affect the social and cultural practices about menstruation (A Kumar *et al*., 2011). A multiethnic exploratory study was conducted to evaluate the menstrual understanding of adolescent girls. Data was collected by using audiotape focus group and individual interviews form 73 Mexican American, African American, Arab American and European American girls. The study showed that cultural and social factors had an important role in transfer knowledge about menstruation (Kelly and Sheila, 2010).

Awareness, Knowledge about and Attitude towards Menstrual Cycle:

A study operated to determine the knowledge and practices of menstrual hygiene among rural and urban school going adolescent girls. A community based cross sectional study conducted on 387 school going girls was conducted in the field practices area of the Rural Health Unit and Training Centre, Saoner in the Nagpur district. This study revealed that there were only 36.95% girls aware about menstruation before menarche. There were around 290 girls were not aware of the causes and origin of the bleeding. Majority of girls knew about the use of sanitary napkins but used only 49.35%. Around 45.74% girls used clothes during menstruation and only 33.85% were satisfied with cleaning of external genitalia. This study suggested that awareness pertaining to need for information about healthy menstrual hygiene practices was very important. A mechanism should be designed to address and for providing of healthy menstrual knowledge (Thakre *et al*., 2011).

In spite the fact, that menstruation is an essential physiological process which all girls will experience with the onset of puberty, yet majority of the girls continue to have incomplete knowledge and, in some cases, even faulty information about it. This knowledge level if

improved can have implication for better reproductive health and positive attitude towards menstruation. The knowledge, attitude and practice regarding reproductive health among 200 school girls in the age 15-19 years from rural and urban settings of Jaipur. It was found that 40% rural girls and 60% urban girls considered menstruation as natural phenomena while 39% of urban girls and 56% of rural girls took it as disease. 11% of urban and 28% of rural girls was not aware about the gap of periodic menstruation cycle. Differences were evident in the perception of urban and rural respondents regarding the right age of menarche. 33% urban respondent had prior information regarding menstruation, 62% rural respondent were unaware of the right age of menarche. Awareness among rural girls was significantly more as compared to urban girls of district of Dehradun of Uttarakhand state. Friends were the first informant in about 31.8 % girls. But most of the respondents did not know about the cause and source of bleeding during menstruation (Dube and Sharma, 2012). Likewise, awareness regarding menstruation is also more in urban adolescent girls (63.38%) as compared to rural (47.57%). The variation in the awareness may be due to socio-economic status and also literacy status of the adolescent girls and their mothers (Patle and Kubde, 2014).

A study on adolescent girls to assess the knowledge and practices on different facets of menstrual hygiene was conducted. It was found that girls did not know about properly maintenance of menstrual hygiene. There were only 6.0% girls knew that menstruation is a physiological process and 36.7% said that it was caused by hormones. There were 94% girls used sanitary pads during menstruation but properly disposed it were only 11.3%. The study found that 40.6% had proper knowledge and practices were 12.9% about menstruation (Adhikari *et al.,* 2007).

A cross sectional study was conducted on awareness regarding "Safe & Hygienic practices amongst school going girls in rural areas of Wardha district, India. Respondents were 300 school going adolescents' girls between the age group of 10-19 years. 40.67% girls got information regarding menstruation from their mothers. Majority of girl (43.67%) were afraid at the time of their first menstruation cycle. There were 46.67% girls used clothes and 15.67% used sanitary napkins during their menstruation. The study revealed that those girls who used clothes were suffering with genital infection in comparison to those used sanitary napkins. Clearing of external genitalia was not satisfactory. Study of Khanna et.al (2005), significant

proportion of girls was not aware about menstruation prior to menarche, which is similar to the finding of the present study. Reasons for least use of sanitary pad were low socioeconomic status, less availability in rural areas and lack of awareness (AB. M. *et al.,* 2010). A cross-sectional questionnaire- based survey was conducted to collect data from post- menarche school girls by using a pre-tested questionnaire. Majority of girls (74%) received information from their mother about menstruation. Girls those had no pre- menarcheal training faced problems of inappropriate experience of menarche, adverse effect of menstruation on schooling and social life and the use of unhygienic menstrual absorbent. This study suggested that there was a need to promote menstrual education &hygiene practices (Aniebue *et al.,* 2009).

A study on perception and practices on menstruation among Nigerian secondary school girls to assess the perception, problems and practices about menstruation represent that mostly students (75.6%) were in 15 -17 year's age group. Only 39.3% students perceived that menstruation is physiological process. Maximum respondents (66.2 %) faced the common medical problem of abdominal pain discomfort, but 45.8% had multiple problems. The medical problems faced by respondents, mostly discussed with their mother (47.1%) and very few numbers of students (0.4%) discussed their problems with their teachers. 55.7% respondents used unhygienic menstrual absorbents during their menstruation period. This study revealed that knowledge about menstruation was poor and practices used were not correct (Adinma and Adinma, 2008). Another descriptive cross-sectional study on menstrual hygiene among 150 adolescent girls found that 108 (67.5%) were aware about menstruation before attainment of menarche. Mother was the first person who informed the girls about menstruation. A majority of girls, 138 (86.25%) presumed as a physiological process. There were only 18 (11.25%) girls used sanitary napkins, 136 (85%) girls faced different types of restrictions during menstruation (Das guptaA et al., 2008).

A study on evaluation of awareness of reproductive health on 120 female adolescents within the age group of 16-18 years resulted a significant association between the type of school and educational level of parents. There were about 53% respondents felt shy and embarrassed to discuss about their menstrual problems and had very poor knowledge about it (Devi, S.M., 2007). A study conducted on the impact of community - based health education interruption on the management of menstrual hygiene among rural Indian adolescent girls in 23 villages in Anji,

in the Wardha district of Maharashtra state represented that majority of adolescent girls (55%) were aware of menstruation before its initiation compared with the baseline (35%), after 3 years. The practices of using sanitary pads increased 5% to 25% and declined reusing of clothes 85% to 57%. This study showed that adolescent girls perceived positive change in their behavior and level of awareness (AR *et al*., 2007).

A study on Knowledge assessment about puberty and menstruation among 504 school adolescent girls by a using pre-designed self-administered questionnaire displayed that more than half respondents did not know what the source of blood was during menstruation. A majority (64.9%) of girls stated that swimming and running was risky during periods. There were many misconceptions included information regarding use of sanitary pad, psychological effects of menstruation and use of sanitary pad, psychological effects of menstruation and weakness during menstruation. Out of 462 girls who obtained their menarche, 64.9% said that their mother was the first source of information related to menarche (Singh, S.P, et al., 2006). Majority of rural girls did not use sanitary pad and faced many problems in personal hygiene such as not changing pad regularly or at night. Majority of girls said that their mothers and mass media was the main source of information about menstrual hygiene. The proper guidance of menstrual hygiene should be connected to expanded program of health education in schools. There should be a supportive environment for menstrual hygiene both at home and in school and sanitary napkins should be distributed at affordable prices (El - Gilany *et al.,* 2005).

Results of a study on reproductive health education and sexual risk among 113 high-risk female adolescents and young adults to examine the connection of sources, content, and timing of reproductive health education with cognitive and behavioral sexual risk reported that majority of the participants (92%) obtained reproductive health education from both parental (80%) and formal sources. Parents discussed the menstrual cycle (94%) more commonly than other topics of sex education, while formal educational sources focused most on teaching about STDs (91%) (Ancheta *et al*., 2005). Another study conducted on surreptitious learning on menarche and menstrual product advertisement to analyze the message communicated in menstrual products on 200 current women's magazine advertisements showed that the advertisement was an impression of negative societal perspective of menstruation and due to advertisement function to perpetuate

and preserve the silence and shame which surrounds menstruation in the society (MR *et al*., 2001).

A study conducted on Puberty rituals, reproductive knowledge and health of adolescent school girls in South India, Pondicherry on 823 adolescent girls between the 12-17years age group showed that puberty ritual was divided into three stages as vaisuku varuvadhu, puniya-thanam, and manjal-neeru. The adolescent girls had not adequate information, 2/3 of them said that it was a shocking or fearful event. The little information provided to them was in the form of restrictions, Knowledge on anatomy, and hygienic practices were not good. Various taboos, misconceptions, and traditional beliefs were common in the society (K.A., *et. al*., 2001). Out of 600 Saudi girls between the age group of 11- 18 years in Riyadh, around two thirds of the girls avoided certain foods, drinks and activities, including showering and performing perineal care, and practiced several indigenous rituals during their menstruation. The main sources of information about menstruation were their mothers, religious books and sisters (M S Abdel, 2001).

A study on menstrual knowledge and practices among 352 adolescent girls of secondary school of Nigeria reported that among 187(53.1%) girls had obtained menarche and 40% of subjects were incomplete knowledge about menstrual. At post- menarcheal stage, girls had higher knowledge about menstruation but 10% of them completely ignorant about menses and 84% were not psychologically ready for first menstruation. The menstrual knowledge of respondents and parental education were positively connected to each other. Family was the major source of information about menstruation. Majority of girls menstruated regularly but 66.3% did not use sanitary napkins as a menstrual absorbent (Abioye *et al*., 2000). The girls who viewed themselves ready for menarche claimed that they had discussed it with their mothers. Girls had accepted that incomplete knowledge and more typically a variety of misconception or ignorance. Girls had incomplete knowledge regarding the location and function of reproductive structure and majority of girls did not know interconnection between menstruation and reproductive structure. Girls should be educated about their own anatomy and physiological process (E Koff *et al*., 1995). A study conducted on menstrual hygiene with the aim to learn the knowledge and practices regarding menstruation of 65 rural adolescent girls aged between14-15 years of a high school showed that maximum number of girls had adequate knowledge about menstruation.

About the practice there was only 10% girls used boiled and dried cloth as a menstrual absorbent during menstruation. Although almost all girls obtained information about menstrual hygiene from different sources, some of their practices were unhygienic. Their mothers had inadequate knowledge about menstruation and the same was transferred to their off springs (K Devi *et al*., 1994).

Research Gap

The existing review of literature contains research paper regarding women hygiene issues (menstruation). This literature contains both Indian and foreign research papers that have been reviewed. Majority of studies assessed the knowledge, perception about myths & conceptions, norms, beliefs of society regarding menstrual hygiene management. Above studies showed that only 9% girls use the sanitary products to manage their menstruation. Many schemes were introduced by governments to eliminate the problems in menstrual hygiene management but still it is a taboo. After reviewing this literature, the following research gaps have been identified:

- Most of studies focused on adolescent girls only, women (above 20 years age) should be included as a sample in study,
- Supply of sanitary napkins is not regular in rural areas,
- More awareness is needed through awareness programs, proper implementation of government MHM schemes,
- Low proportion of sanitary napkins users,
- Menstrual Hygiene Education (MHE) is yet not included properly in school curriculum program.

III. Objectives of the study

1. To study the level of awareness and perception towards menstruation and menstrual hygiene, and role of social marketing initiatives therein;
2. To identify the major problems faced by women in managing their own periods and menstrual hygiene;
3. To measure the attitude of respondents towards menstruation and menstrual hygiene;
4. To find out the prevalent practices of menstrual hygiene and to study the influence of marketing in adopting modern menstrual hygiene practices;

5. To suggest measures to improve the reach of modern menstrual hygiene practices to rural areas.

IV. Relevance of the study

There is still a large educational gap about healthy menstrual practices amongst adolescent girls in India. Complete evidence-based knowledge regarding physiology of menstruation and adoption of healthy menstrual practices must be imparted to adolescent girls. For this purpose, mothers, nurse educator, nurse researcher and nurse administrator can play a big role to providing this knowledge to adolescent girls and women also. Menstruation is an important indicator of reproductive health and development; thus, menstrual hygienic practices are of major concern. The above studies revealed that menstrual hygiene is unsatisfactory among adolescent girls. Girls should be educated about the facts of menstruation, physiological implications, significance of menstruation, and appropriate hygienic practices during menstruation. This can be achieved with the help of media, sex education in school curriculum, and focused group discussions. Universalization of the use of sanitary pads can be defended to every girl by social marketing. Incorrect restrictions, myths and beliefs connected with menstruation can be removed with the help of teachers and parents. Women's associations and professional organizations related to women's health care should promote public discussion of menstrual health problems through seminars, workshops and conferences. These non-governmental organizations may similarly help in the provision and distribution of sanitary pads at low cost to poor girls.

V. Research methodology

The details of the methodology in the present study will be as under:

a) Research Design:

A research design is a blueprint for fulfilling objectives and answering questions. It consists how data is to be collected, what instruments will be employed, how the instruments will be used and intended means for analyzing data collected. The research design of proposed research work would be exploratory cum descriptive in nature which will help in getting the answers of above specified objectives of the study. The study will focus on assessing the knowledge, attitude,

perception, status, sources of information and problems faced by women in managing their periods.

b) Population:

The population shall comprise the men (above 18 years age) and women (above 13 years age) of rural Haryana.

c) Sampling Plan:

The sampling plan consists of sampling unit, sampling size and sampling techniques.

d) Sampling Unit:

- Around 13-17 years (teenagers' girls)
- 18-30 years (youngest women)
- 30 years & onwards
- All males of above 18 years age group including one section of main care taker of the family

e) Sample Size and Techniques:

The sample in the study would be teenager girls, women and men including the care taker of the family of rural Haryana. The sample size for this study will comprise of approximately 750 men and women from the six administrative zone of Haryana. In the beginning we will use multistage sampling for which Haryana state divided into six districts. From each district two blocks will be selected. After that two villages will be selected from each block. In this study, a non-probability sampling technique judgmental sampling will be used.

However, the exact sample size will be selected after the pilot study depending upon the variation of the population.

f) Research Instruments:

The data will be collected with the help of self- designed questionnaire. The designed questionnaire will be tested for reliability and validity analysis. Each statement of questionnaire will be scored on Likert scale. Chi- square, factor analysis, t-test, ANOVA, regression and other necessary statistical tools will be used for data analysis. Statistical packages SPSS will be used for the study.

VI. Chapter Plan

The research largely intends to follow the following chapter plans which might be renamed later on based upon the findings if the study:

Chapter -1. Introduction

This chapter will consist of the introduction of study, presenting the various myths and beliefs regarding menstruation.

Chapter- 2. Review of Literature

This chapter will include review related to awareness towards menstrual hygiene practices among women of the whole world.

Chapter- 3. Research Methodology

This chapter consists of the material and methods used in the conduct of this research. The chapter comprises problem statement, research objectives, sample unit, data source and approach towards objective's fulfilment.

Chapter- 4. Analysis and Interpretation

This chapter will comprise the result and discussions emanating from the analysis of data contained in statistical tables. This statistical analysis includes interpretation through various statistical tools.

Chapter- 5. Findings, Discussion and Conclusion

The outcomes of analysis and interpretation of data leading to the research results have been summarized and discussed in this chapter and the same are followed by conclusion proposed in this study. Limitations of the study and future research direction also would be presented in this chapter.

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